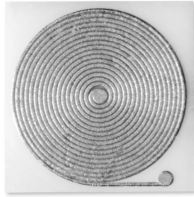


Spiral Chip Inductor



Product may not be to scale

The PSC Chip Inductors offer the best combination of size and value available. Generally custom built to specific value requirements, two versions are offered here.

These chips are manufactured using Vishay Electro-Films (EFI) sophisticated Thin Film equipment and manufacturing technology. The PSCs are 100% electrically tested for inductance and Q.

FEATURES

- Small chip size: 0.050 inches square
- Alumina substrate
- Inductance up to 150nH
- Inductor material: thin film gold

APPLICATIONS

Primary application is in microwave circuits as resistant element or as choke in power supplies. High self-resonance is important for choke applications and achieved by reducing capacitance between turns by physically increasing space between spiral lines.

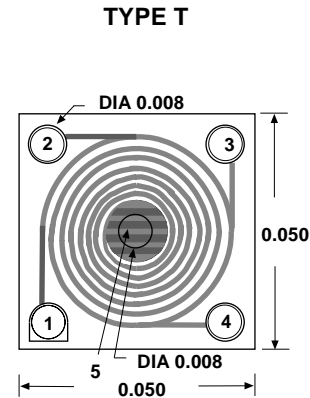
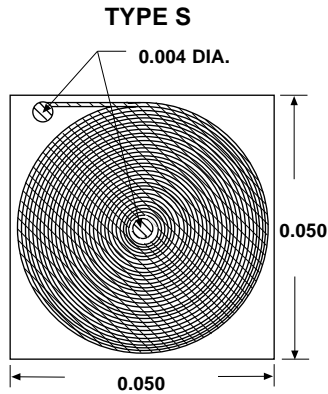
Multi tap coils are available for wire bond tuning but since inductors are very sensitive to pattern width/spacing and metallization thickness almost all are custom built to specification desired.

VALUES AND TOLERANCES		
	TYPE S Single Bond	TYPE T Tunable
Q @ 1MHz	0.05	0.08
Tolerances	± 5% to ± 25%	± 10% to ± 25%
Steps		3 x 9%

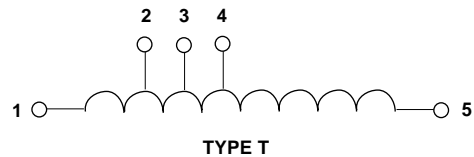
Custom values/sizes available. Quartz substrate available for higher Q.
Consult Application Engineer

STANDARD ELECTRICAL SPECIFICATIONS	
PARAMETER	
Operating temperature range	- 55°C + 125°C
Dielectric constant	9.8 for alumina
Coil resistance	< 5Ω
Insulation resistance	10 ¹² Ω minimum

CONFIGURATIONS in inches



SCHEMATIC



MECHANICAL SPECIFICATIONS in inches	
PARAMETER	
Chip size	0.050 x 0.050 ± 0.003 (1.32 x 1.32 ± 0.076mm)
Chip thickness	0.015 ± 0.002 (0.38 ± 0.05mm)
Chip substrate material	99.6 Alumina, Quartz available
Bonding pad size	TYPE S 4 mil diameter typical TYPE T 8 mil diameter typical
Pad material	Gold

ORDERING INFORMATION				
Example: PSC TYPE S, 140nH, ± 10%				
P/N: PSC	S/T TYPE	140 INDUCTANCE VALUE 3 significant digits	0 MULTIPLIER CODE B = 0.01 A = 0.1 0 = 1 1 = 10	K TOLERANCE CODE J = 5.0% K = 10% M = 20% L = 25%

CHIP
INDUCTOR